

Project Design Phase-II Data Flow Diagram & User Stories

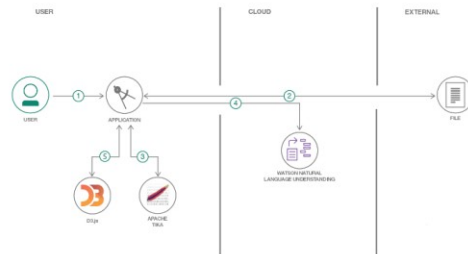
Date	03 NOVEMBER 2023
Team ID	NM2023TMID06902
Project Name	Project - Irevolution: A Data-Driven Exploration Of Apple's Iphone Impact In India
Maximum Marks	4 Marks

Data Flow Diagrams:

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

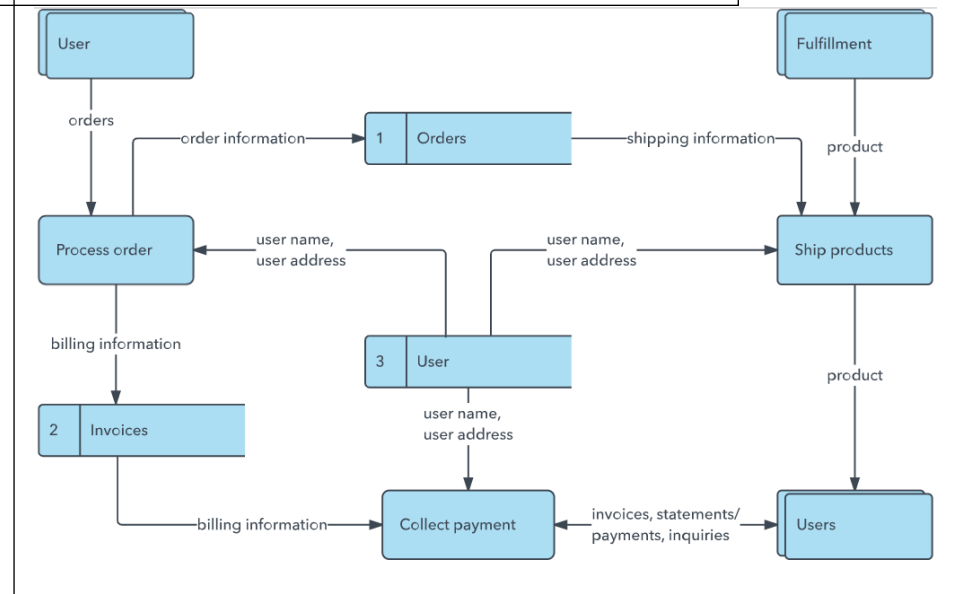
Example: (Simplified)

Flow



1. User configures credentials for the Watson Natural Language Understanding service and starts the app.
2. User selects data file to process and load.
3. Apache Tika extracts text from the data file.
4. Extracted text is passed to Watson NLU for enrichment.
5. Enriched data is visualized in the UI using the D3.js library.

Example: DFD Level 0 (Industry Standard)



User Stories

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Data Analyst	Data Collection and Integration	USN-1	As a data analyst, I want to collect data from prominent travel aggregators to conduct competitive analysis, so that I can access up-to-date information for analysis.	The system should support data extraction from multiple sources, including APIs, websites, and databases of travel aggregators. It should allow data analysts to specify the data sources and the frequency of data updates. The system should provide real-time or scheduled data collection.	High	Sprint-1
Data Analyst	Data Processing and Cleaning	USN-2	As a data analyst, I want to preprocess and clean the collected data to ensure accuracy and consistency, so that I can perform reliable analysis.	The system should handle data cleansing, including handling missing values and outliers. It should support data transformation to a standardized format for analysis.	High	Sprint-1
Data Analyst	Data Analysis and Visualization	USN-3	As a data analyst, I want to use statistical and machine learning techniques to analyze the data, so that I can derive actionable insights.	The system should provide a range of analysis tools and libraries for data exploration. It should allow data analysts to create visualizations, such as charts, graphs, and dashboards. The system should support custom query and analysis options.	High	Sprint-2

Data Analyst	Competitive Benchmarking	USN-4	As a data analyst, I want to compare the performance metrics of different travel aggregators, so that I can identify their strengths and weaknesses.	The system should allow for the selection of specific metrics for comparison. It should generate comparative reports for each aggregator. The reports should highlight areas of excellence and areas needing improvement.	High	Sprint-3
Decision-Maker	Reporting and Recommendations	USN-5	As a decision-maker, I want to receive detailed reports based on data analysis, so that I can make informed strategic decisions.	The system should generate comprehensive reports summarizing the competitive analysis. Reports should include actionable recommendations for market positioning and strategies. Decision-makers should be able to access these reports through a user-friendly interface.	High	Sprint-2
System Administrator	Data Security and Compliance	USN-6	As a system administrator, I want to ensure data security and compliance with data protection regulations, so that sensitive information is protected.	Implement robust access control and authentication mechanisms. Ensure data encryption and secure data storage. Comply with relevant data privacy regulations.	High	Sprint-3
System Administrator	Scalability	USN-7	As a system administrator, I want to ensure that the system can handle a growing volume of data and new aggregators, so that the project remains adaptable to changes in the industry.	The system should be designed to accommodate increasing data volumes without significant performance degradation. It should be capable of integrating data from new travel aggregators without major system modifications.	Medium	Sprint-4
Data Analyst	API Integration	USN-8	As a data analyst, I want to provide APIs for other systems to access and utilize the data and insights generated by our analysis, so that we can promote data sharing and collaboration.	Develop APIs that allow external systems to retrieve data or insights. Provide documentation for these APIs to facilitate integration with external applications.	Medium	Sprint-5